Specification for Community Air Monitoring

Abatement and Selective Demolition
130 Cedar Street
New York, NY 10006

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Specification for Community Air Monitoring

1.0 Introduction

The community air monitoring and observations of visible emissions during the abatement and selective demolition of the building located at 130 Cedar Street, New York, NY 10006 ("the Building") will be performed according to methods or their equivalents contained in this specification.

2.0 Environmental Air Monitoring

The objective of environmental (ambient) air monitoring during this project is to monitor air quality and to gauge migration, if any, of contaminants from the site during building abatement and selective demolition. The goal of the air sampling is to ensure that the abatement and selective demolition operations do not have a negative impact on the surrounding community. Air monitoring is to be conducted during two phases of this project:

Abatement phase during which selected contaminants will be cleaned to at or below specified levels and tenant fit out and furniture will be removed from the Building.

Selective demolition phase during which all interior and exterior walls will be removed, with the exception of basement exterior walls, leaving the concrete columns and floor.

Air monitoring will be conducted around the property perimeter and potential emission areas. During the course of this project, portions of the abatement phase and selective demolition phases will be performed concurrently. Initially, air monitoring as specified in both the abatement phase and selective demolition phases will be performed. Once asbestos abatement activities have been completed as approved by NYCDEP, the Title 15 air monitoring operations will be discontinued.

This specification describes eight (8) Community Monitoring locations. All references contained within this specification regarding sampling and analytical methodologies will be utilized for all monitoring performed by 130 Cedar's environmental consultant at sites #3 - #8. Sampling and analysis for locations #1 & #2 delineated in section 3.0 of this specification, will be performed by 130 Liberty's environmental consultant per their "Ambient Air Monitoring Program for the 130 Liberty Street Deconstruction Project" previously approved by the EPA, et al.

More than one laboratory is handling the analysis for all of the analytes approved by the regulators at a given site. It is the independent monitoring consultants, not the laboratories that have responsibility to determine if an analytical result exceeds the predetermined "Target Air Quality Levels" and/or the "EPA Site Specific Trigger Levels". These determinations are made immediately upon receipt of the analytical results.

TRC will provide RJLG with the data for the following analysts per location number 1 and 2;

Lumex Mercury Real Time (Daily)

Asbestos AHERA TEM (Daily)

Particulate Visible Dust Omissions Observations (Daily as available)

Asbestos PCMe (Daily)

Silica (Daily)

Metals (Daily)

Integrated Mercury (Daily)

Particulate PM2.5 & 10 – Direct Read (Daily)

Particulate PM2.5 & 10 – FRM Data (As available for stations 1 & 2 per 130 Liberty's schedule)

SVOCs

Dioxin/Furans (As needed)

PAHs (As needed)

PCBs (As needed)

LMCCC will supply 130 Cedar with meteorological data as required in order to, among other things; assist with the analysis of an exceedance.

All exceedances measured at Stations 1 and 2 will be reported to RJLG at the same time they are reported to U.S. Environmental Protection Agency (EPA) (either via e mail or cell phone). Immediately after receiving an exceedance e mail or call from TRC, RJLG will in turn notify the EPA via e-mail or cell phone and follow exceedance procedures delineated in sub-section 6.0 of this specification. All reports resulting from exceedances at Stations 1 and 2 will be sent to RJLG via e mail (PDF format) concurrent with submittal to EPA.

Subsequent to any exceedance reports by TRC or RJLG the LMCCC (via TRC) will email 130 Cedar (via RJLG) with validated analytical laboratory data results for sampling performed at the community air monitoring station locations numbered 1 and 2 in the Memorandum. The laboratory results are considered to be validated and finalized by TRC at the same time that results are issued for posting on the LMDC web site. These data will be issued in Excel format three (3) times per week (M,W,F).

If the sampling duration period for asbestos AHERA TEM at the 130 Liberty Street air monitoring stations on a given day is planned to be less than the total hours planned to be worked for all shifts on that same day at the 130 Cedar Street project, RJLG will collect

asbestos AHERA TEM samples for the duration of each work shift at the 130 Cedar Street project on the 130 Cedar St. scaffold bridge on the northeast corner and the southeast corners during those work days.

In addition to performing monitoring for Lumex Mercury Real Time at locations #3 - #8, RJLG will perform Lumex Mercury Real Time monitoring twice per work shift at the scaffold bridge on the northeast corner and the southeast corner locations during work days and once per day on non-work days.

Summary results from direct read instruments, i.e. PM10, PM2.5 and Lumex Mercury, will be sent by TRC to RJLG via e-mail in Excel format three (3) times per week (M,W,F). TRC will send the data to RJLG for review so that results can be applied for 130 Cedar Property monitoring. PM10 results for Stations 1 and 2 collected on organics sampling days will be sent via e mail the following business day. This schedule will allow for shipment of the organics on the day they are collected.

130 Cedar Property monitoring will be performed for SVOCs on the same schedule/days as 130 Liberty.

RJLG will take the appropriate steps as delineated in this specification to stop work in the case of a trigger exceedance and start an investigation into the possible cause or in the case of a target exceedance start the investigation into the possible cause.

In addition, EPA (for any exceedances) and the New York City Department of Environmental Protection (NYCDEP) (for asbestos exceedances only) will be notified promptly by 130 Cedar Street via phone and electronic mail of any exceedance of either a target air quality level or an EPA site specific trigger level and will be notified promptly by 130 Cedar Street of any corrective actions taken in connection with a target air quality level exceedance or an EPA site specific trigger level exceedance at the two 130 Liberty Street community air monitoring stations.

2.1 Abatement Phase – Visible Emissions

During each work shift, the Environmental Consultant will be tasked with observing the Building's containment barriers and exterior. Special attention will be paid to established critical barriers and area(s) of high emission potential to identify any visible emissions.

If any visible emission is noted exterior of the work area, the work will be stopped and the Environmental Consultant will perform an immediate evaluation of in-place engineering controls for the emission location. The evaluation may include, but is not limited to, work activities and smoke testing of the critical barriers. Any damaged or malfunctioning engineering control will be repaired immediately. The work will not restart until engineering controls are repaired or determined to be functioning properly.

2.2 Selective Demolition Phase – Visible Emissions

During each work shift, the Environmental Consultant will observe demolition operations to monitor visible dust in the air and suppression measures being applied by the demolition contractor. The Environmental Consultant may, depending on the severity and duration of dust condition, order a stoppage of the work or require modified work practices to reduce visible dust emission.

2.3 Notification – Visible Emissions

The EPA Region 2 office and NYCDEP will be promptly notified of any visible emissions observed by the Environmental Consultant to cross the property line of the Building, and the Environmental Consultant will subsequently promptly advise the EPA Region 2 office and NYCDEP of the corrective actions taken.

2.4 Air Sampling and Analytical Methodology

Analysis and sampling methods used in this Project will follow EPA or National Institute of Occupational Safety and Health (NIOSH) protocols as guidelines or other standard methodologies. Modifications to sampling and analysis protocols listed below may be made as required to permit an accurate and precise analysis. Generally, sampling will be performed once each 24 hour period, except for asbestos transmission electron microscopy (TEM) samples, which will be taken for the duration of the every work shift and once a day during non-work days throughout the duration of the abatement phase and the selective demolition phase. Real-time particulate monitoring will be on a continuous basis. Instantaneous mercury readings will be obtained to evaluate the air quality around the work site at multiple locations each work day. Table 1 sets forth a more detailed explanation of the sample collection and analysis protocols.

Table 1. Community Air Monitoring Sampling Methodologies

Analyte	Method	Sample* Rate (lpm)	Duration Per Sample Period	Comments
		Metals		
Antimony, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Manganese, Mercury (particulate), Nickel, and Zinc	NIOSH 7300 mod.	2 to 4	24 hours	MCE Filter, ICP-MS Analysis
Elemental Mercury	Ohio Lumex AA, Direct Read	20	Twice per work shift at each monitor site during work days and once per day at each site per non-work days	Elemental (vapor) Mercury Analysis
Mercury (Total)	EPA Method 324 (or equivalent)	0.4	24 hours	Potassium iodide treated charcoal tube
		Particulate and Dust		
Asbestos	NIOSH 7402	2-4	Duration of each shift + one set on non-work days	Analysis via AHERA** mod. methodology
Asbestos PCMe*** fibers	NIOSH 7402 using polycarbonate (PC) filter	1-4	24 hours	SEM/EDS analysis of PC filter
Particulate PM 10	EBAM (Electronic Beta Attenuation Monitor)	16.7	24 hours	Real-time analysis
Particulate PM 10	40 CFR Part 50 Appendix J	1132	24 hours	8”x10” quartz fiber filter
Particulate PM 2.5	EBAM (Electronic Beta Attenuation Monitor)	16.7	24 hours	Real-time analysis
Particulate PM 2.5	40 CFR Part 50 Appendix L	16.7	24 hours	47 mm PTFE filter
Crystalline Silica	NIOSH 0600/7500	2.5	24 hours	SKC Aluminum cyclone
		Semi-volatile Organic Compounds		
Dioxins / Furans (PCDDs/PCDFs)	EPA TO-9A	225	24 hours	Quartz fiber and PUF filter
Polychlorinated biphenyls (PCBs)	EPA TO-4A	225	24 hours	Quartz fiber and PUF filter
Polynuclear Aromatic Hydrocarbons (PAHs)	EPA TO-13A	225	24 hours	Quartz fiber and PUF filter

** lpm = liter per minute, sampling rates may be modified to optimize filter sample loading for microscopy and/or gravimetric related analyses.*

*** 40 CFR 763 AHERA TEM analysis protocol*

*** *PCMe = phase contrast microscopy equivalent fibers which are greater than 5 micrometers in length and greater than 0.2 micrometers in width as determined by SEM/EDS for comparison to the Target Air Quality Level.*

Asbestos sample collection will be performed in accordance with NIOSH 7402, "Asbestos by TEM". Asbestos analysis will be performed utilizing TEM analysis specified in 40 CFR Part 763, Asbestos Hazard Emergency Response Act, (AHERA), with the following modifications:

The sensitivity on TEM air samples will be less than 0.002 s/cc.

Both length and width of all asbestos fibers will be recorded.

Confirmation by EDS and/or SAED will be performed for each fiber analyzed.

The morphology of the fibers will be noted and recorded.

Metals sampling and analysis will be performed following NIOSH 7300 "Elements by ICP" methodology with the following modifications:

ICP-MS will be utilized when analyzing metal air sample filters. Rationale: ICP-MS has an approximate 100X (times) lower detection limit than standard ICP-AES analysis specified in NIOSH 7300.

Metals to be analyzed by ICP-MS and reported are: Antimony, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Manganese, Mercury (particulate), Nickel, and Zinc.

A hot block/acid digestion will be used.

Real-time air monitoring for mercury will be performed utilizing a Lumex RA 915+ direct read instrument. The readings will be entered into the PDA program for inclusion with the daily download of sample collection data.

The Lumex will be utilized to obtain detection levels below established air contaminant criteria. At a minimum, mercury readings will be taken twice per shift at the fixed air monitoring locations once after all shift air samples are initialized and once before the shift samples are collected. At the discretion of the Environmental Consultant and as daily site conditions may dictate, additional mercury readings may be taken.

Airborne dust and particulate at the Building will be monitored using sample collection and real-time air monitoring. Real-time air monitoring for PM-2.5 and PM-10 will be accomplished with direct reading particulate in air monitors. Data from real-time EBAM particulate monitors will be data logged. Samples for asbestos PCMe fibers will be collected in accordance with NIOSH method 7402. Respirable dust and crystalline silica sampling will be performed according to NIOSH Method 0600 protocol with analysis following NIOSH Method 7500 (XRD).

3.0 Community Air Monitoring

Exterior asbestos sampling locations will be placed at or near street level. The following sample locations (see list below), along with two blanks (asbestos) and one blank (metals) will be sampled daily as part of the NYCDEP requirements included in community outside the work area (OSWA) monitoring program. The community monitoring program will be performed at eight (8) locations. The eight community monitoring locations to be sampled during the abatement phase are:

#1 130 Liberty Sidewalk Bridge, SW Corner (Operated by LMCCC)

#2 Street Level, NE corner of Cedar/Washington (Operated by LMCCC)

#3 90 West Courtyard at 2nd Floor Level

#4 Albany St. 6th floor 130 Cedar Scaffolding

#5 Washington Street 6th floor 130 Cedar Scaffolding

#6 Cedar St. 6th floor 130 Cedar Scaffolding

#7 130 Cedar Roof, East Facade.

#8 130 Cedar Roof, North Façade.

If the regulators determine that the owner(s) and representatives of 130 Cedar Street are not providing all relevant data, not providing prompt notification, or not stopping work promptly based on exceedances at the two 130 Liberty Street community air monitoring stations, stations #1 & #2, the two community air monitoring stations originally proposed and accepted to be used on-site at 130 Cedar Street, and operated by 130 Cedar Street during the background phase, will be re-installed. All work activities at the 130 Cedar Street project would temporarily stop until the two new community air monitoring stations are installed, calibrated and confirmed to be functioning properly. The other community air monitoring stations already present and operating on-site would continue to run and data would be gathered from them while the other two new community air monitoring stations are bring installed, calibrated and confirmed to be operational and incorporated into the community air monitoring stations being used to monitor the 130 Cedar Street project.

Sampling for semi-volatile organic compounds will be performed at the eight previously referenced locations, once per week on a consecutive different day of the work week (e.g., week #1 on Monday, week #2 on Tuesday, etc.) during the abatement phase and selective demolition phase until all days of the work week are used. The schedule will then be repeated until project completion. The semi-volatile organic samples collected employing this sample frequency will not be

processed for analyses; rather they will be placed in archival storage at the laboratory. A single set of samples will be selected for each weekly sampling event to undergo analyses for PCDDs/PCDFs, PAHs, and PCBs. Samples from the location with the highest 24-hour average PM_{10} particulate concentration for that day will be submitted for analysis each week. This is intended to result in the processing of the samples that have the best likelihood of representing the "worst case".

130 Cedar will coordinate with and perform monitoring for SVOCs on the same schedule/days as 130 Liberty.

PM10 results for Stations 1 and 2 collected on organics sampling days will be sent via e mail the following business day. This schedule will allow for shipment of the organics on the day they are collected..

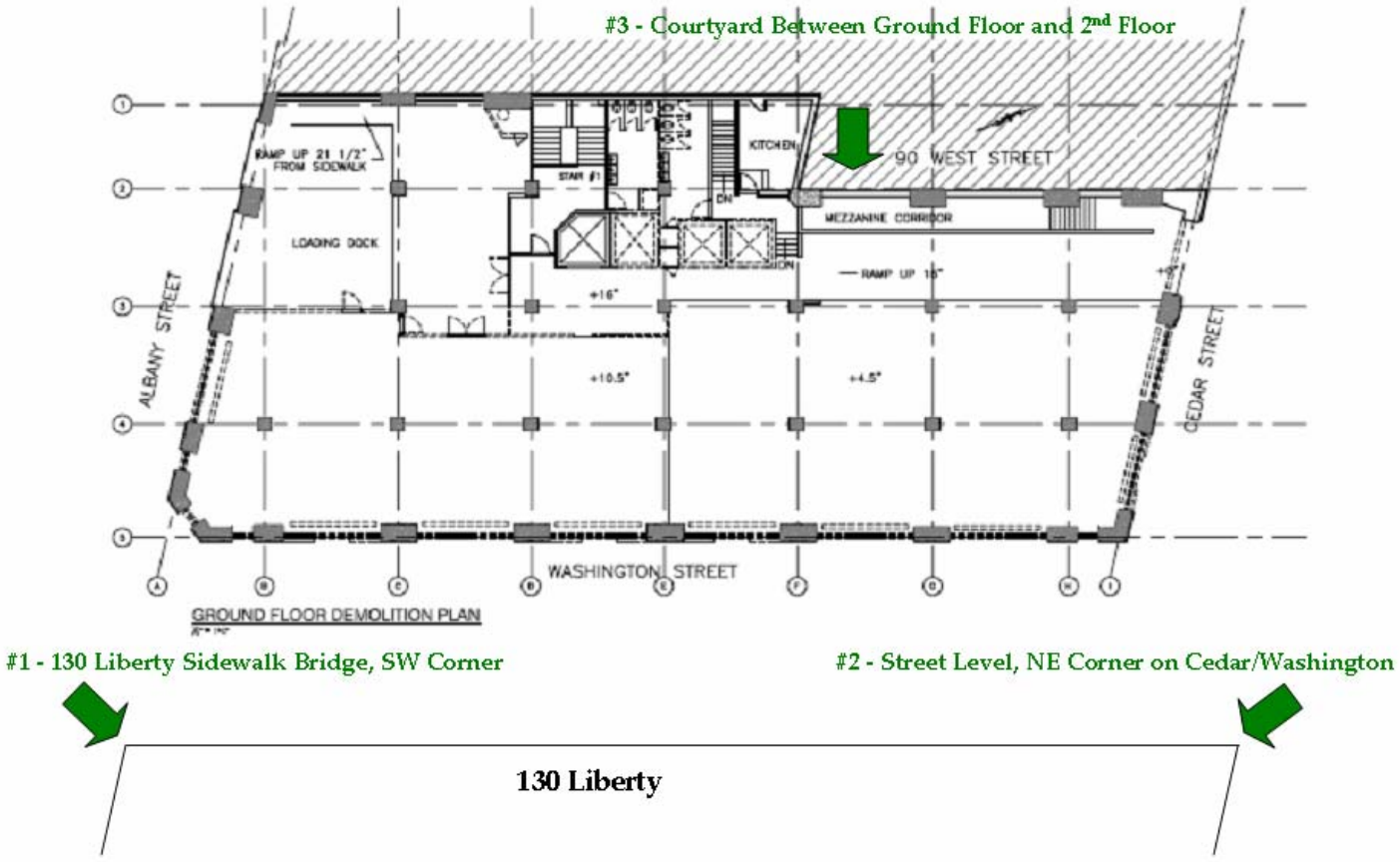
RJLG will evaluate this data along with the PM10 data from the other 6 community monitoring stations for the same day and determine which of the eight total stations had the highest PM10 value for that day.

If the highest 24-hour average PM10 particulate concentration for 130 Cedar happens to be at community air monitoring station locations numbered 1 or 2 in the Memorandum and such location is NOT 130 Liberty's highest 24-hour average PM10 particulate concentration, an agreement has been reached that 130 Liberty will be responsible for the analyses for SVOCs for that site in addition to the site(s) they will analyze per their approved plan. TRC will provide RJLG summary results for those analyses immediately upon receipt of data from their laboratory following the same procedure delineated herein regarding exceedance data.

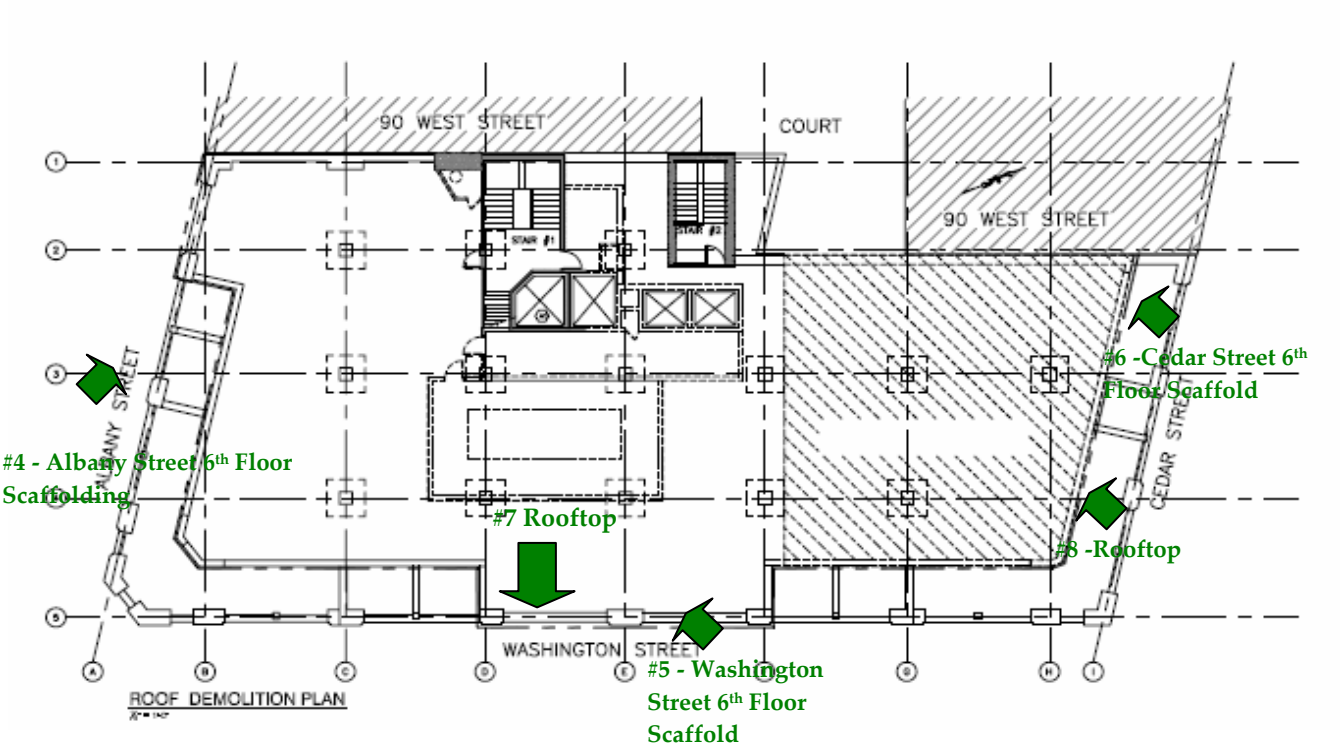
Prior to the initiation of abatement, baseline community air monitoring will be performed for a ten day period at four monitoring stations (two roof locations and two ground level locations: 1. Northeast corner sidewalk scaffold bridge (corner of Washington and Cedar Street) 2. Courtyard) for each of the selected analytes (Table 1) to evaluate the background air quality at the Building.

If the community air monitoring locations need to be changed or decommissioned due to site conditions or if it is determined that a monitoring location is no longer necessary, the USEPA Region 2 office will be notified promptly. The community air monitoring locations will not be moved or decommissioned until the USEPA Region 2 office accepts the change.

130 Cedar St. Community Air Monitoring Locations



Elevation - Air Monitoring Station Locations



4.0 Abatement Phase Air Monitoring

Air monitoring of airborne asbestos fibers for NYCDEP Title 15 OSWA is included in this phase of the work. Worksite asbestos sampling locations include:

Porous Material Waste Decon Clean Room

Non-Porous Material Waste Decon Clean Room

Personnel Decon Clean Room

Shanty (location may change daily)

One HEPA Exhaust Location (location to change daily)

In any occupied area that is adjacent to an abatement barrier

Six (6) air samples will be collected and analyzed daily from OSWA locations for asbestos by TEM.

Parameters to be sampled and analyzed as part of the community air monitoring during the abatement phase are contained in Table 2.

5.0 Selective Demolition Phase Air Monitoring

During the selective demolition phase, the community air monitoring program will be performed initially at eight (8) locations. The eight (8) community monitoring locations to be sampled during the Selective Demolition Phase are:

#1 130 Liberty Sidewalk Bridge, SW Corner (Operated by LMCCC)

#2 Street Level, NE corner of Cedar/Washington (Operated by LMCCC)

#3 90 West Courtyard at 2nd Floor Level

#4 Albany St. 6th floor 130 Cedar Scaffolding

#5 Washington Street 6th floor 130 Cedar Scaffolding

#6 Cedar St. 6th floor 130 Cedar Scaffolding

#7 130 Cedar Roof, East Facade. This station will be lowered with scaffold per the demolition schedule.

#8 130 Cedar Roof, North Façade. This station will be lowered with scaffold per the demolition schedule.

Parameters to be sampled and analyzed from selective demolition phase locations are contained in Table 2.

Table 2. Community Air Monitoring Analysis Summary

Location	Parameter(s)	Sample Frequency	Method	Comments
Bldg Area	Mercury	Twice per day at each monitor site during work days and once per day at each site per non-work days*	Lumex, portable mercury analyzer	Lumex results are real-time data logged
Bldg Area	Particulate (Visible dust emissions)	Work days*	Visual observation	
Bldg Perimeter - eight locations	Particulate PM-2.5, PM-10	Daily (direct read instruments)	Electronic Beta Attenuation Monitor (EBAM)	FRM Method sampling for QA purposes at one location**
Bldg Perimeter - eight locations	Asbestos – AHERA	Duration of each shift + one set on non-work days (AHERA)	TEM	Sampling duration may be modified***
Bldg Perimeter - eight locations	Asbestos – PCMe fibers Silica Metals Mercury	Daily	SEM XRD ICP/MS CVAFS (1631) or Thermal Decomp.(7473)	
Bldg Perimeter – eight locations	Dioxins/Furans PAHs PCBs	Once per week – revolving work day schedule	HRGC/HRMS GC/MS - SIM GC-ECD	Samples from Location with highest PM_{10} will be submitted for analysis
Blanks	Asbestos (1) Silica (1) Metals (1)	Daily	TEM XRD ICP/MS	

** Monitoring will occur on Saturday and Sunday if they are days when Work is occurring*

** One PM_{10} and one $PM_{2.5}$ sampler will be collocated at one location using the methods outlined in 40 CFR Part 50 Appendix J and Appendix L, respectively.*

*** Sampling duration and/or flow rate may be modified to provide optimum analyte loading for analysis based on results of ongoing analysis. Initial sampling flow rates will be according to rates prescribed in the sampling method.*

6.0 Evaluating Results

The Target Air Quality Levels and EPA Site Specific Trigger Levels for the Building are provided in Table 3.

Table 3. Target Air Quality Levels and EPA Site Specific Trigger Levels

Analyte	Target Air Quality Levels [1]	EPA Site Specific Trigger Levels [2]
Metals		
Antimony	5 ug/m^3	14 ug/m^3
Barium	5 ug/m^3	5 ug/m^3
Beryllium	0.02 ug/m^3	0.2 ug/m^3
Cadmium	0.04 ug/m^3	2 ug/m^3
Chromium[3]	0.6 ug/m^3	0.6 ug/m^3
Copper	10 ug/m^3	100 ug/m^3
Lead	1.5 ug/m^3	5 ug/m^3
Manganese	0.5 ug/m^3	0.5 ug/m^3
Mercury	0.3 ug/m^3	3 ug/m^3
Nickel	0.2 ug/m^3	28 ug/m^3
Zinc	16 ug/m^3	160 ug/m^3
Particulate and Dust		
Asbestos Structures - AHERA	N/A	70 s/mm^2
Asbestos Fibers (PCMe)	0.0009 f/cc	N/A
Particulate PM-10 (24 hour average)	150 ug/m^3	150 ug/m^3
Particulate PM-2.5 (24 hour average)	40 ug/m^3	65 ug/m^3
Respirable Silica (crystalline)	10 ug/m^3	10 ug/m^3
Semi-volatile Organic Compounds		
Dioxins / Furans (2,3,7,8 – TCDD equivalents)	0.00025 ng/m^3	0.025 ng/m^3
PCBs (total Aroclors)	0.12 µg/m^3	12 µg/m^3
PAHs (benzo-a-pyrene potency factor)	0.034 µg/m^3	3.4 µg/m^3

1. Target air quality level values are applicable to a rolling average concentration after the first week of sampling, except for PM10 and PM2.5.
2. 24-hour values, except for asbestos.
3. EPA Site specific trigger level for chromium is based on a Hexavalent chromium (chrome VI) concentration. The reference value will be compared against total chromium results as a screening for Hexavalent chromium.

Evaluations of Exceedance Criteria will be made by 130 Cedar's environmental consultant based upon the laboratory data submitted to the site in accordance with the turn around times delineated in Table #4.

All exceedances measured at Stations 1 and 2 will be reported to RJLG at the same time they are reported to U.S. Environmental Protection Agency (EPA) (either via e mail or cell phone).

Immediately after receiving an exceedance e mail or call from TRC, RJLG will in turn notify the EPA via e-mail or cell phone and follow exceedance procedures delineated in sub-section 6.0 of this specification. All reports resulting from exceedances at Stations 1 and 2 will be sent to RJLG via e mail (PDF format) concurrent with submittal to EPA.

Subsequent to any exceedance reports by TRC or RJLG the LMCCC (via TRC) will email 130 Cedar (via RJLG) with validated analytical laboratory data results for sampling performed at the community air monitoring station locations numbered 1 and 2 in the Memorandum. The laboratory results are considered to be validated and finalized by TRC at the same time that results are issued for posting on the LMDC web site. These data will be issued in Excel format three (3) times per week (M,W,F).

If the sampling duration period for asbestos AHERA TEM at the 130 Liberty Street air monitoring stations on a given day is planned to be less than the total hours planned to be worked for all shifts on that same day at the 130 Cedar Street project, RJLG will collect asbestos AHERA TEM samples for the duration of each work shift at the 130 Cedar Street project on the 130 Cedar St. scaffold bridge on the northeast corner and the southeast corners during those work days.

As with sites #3 - #8, RJLG will perform Lumex Mercury Real Time monitoring twice per work shift at the scaffold bridge on the northeast corner and the southeast corners during work days and once per day on non-work days.

Summary results from direct read instruments, i.e. PM10, PM2.5 and Lumex Mercury, will be sent by TRC to RJLG via e-mail in Excel format three (3) times per week (M,W,F). TRC will send the data to RJLG for review so that results can be applied for 130 Cedar Property monitoring. PM10 results for Stations 1 and 2 collected on organics sampling days will be sent via e mail the following business day. This schedule will allow for shipment of the organics on the day they are collected.

This procedure for data acquisition for site #1 & #2 will allow RJLG, access to all data, including 130 Cedar's #3 - #8, necessary to investigate cause. RJLG will take the appropriate steps as delineated in this specification to stop work in the case of a trigger exceedance and start an investigation into the possible cause or in the case of a target exceedance start the investigation into the possible cause.

RJLG and Masterworks will not rely on the assessment of any given exceedance being conducted for the 130 Liberty Street project by TRC for the 130 Cedar Street project. Any exceedances of any of the site specific trigger level parameters at the two 130 Liberty Street community air monitoring stations being used by 130 Cedar Street will result in an immediate stoppage of work at the 130 Cedar Street project while RJLG conducts its own independent evaluation of emission controls, assesses the nature and cause of the exceedance, and ensures corrective actions are taken if the exceedance is determined to be associated with the 130 Cedar Street project, or make its own determination that the exceedance was not attributable to the 130 Cedar Street project. RJLG will then notify the regulators promptly of any

corrective actions taken in connection with a target air quality level exceedance or a site specific trigger level exceedance and submit its own exceedance summary report (for exceedances of the trigger level) independent of LMDC/LMCCC.

The following actions will be taken if there is an exceedance of any Target Air Quality Level. If there is an exceedance of both the Target Air Quality Level and the EPA Site Specific Trigger Level, actions associated with the EPA Site Specific Trigger Level will govern.

Target Air Quality Levels

Any 24-hour $PM_{2.5}$ and PM_{10} value in excess of the Target Air Quality Level will be considered an "exceedance" and the actions described below will be taken.

During the first week of sampling, any sample analyte other than $PM_{2.5}$ and PM_{10} in excess of three times the Target Air Quality Level for that analyte, unless superceded by an EPA Site-Specific Trigger Level, will be considered an exceedance and the actions described below will be taken.

Following the first week of sampling, a "rolling average" will be established based initially on the first week's results, to which will be added daily values as results are received from the laboratory. A rolling average value for any analyte, other than $PM_{2.5}$ and PM_{10}, in excess of the relevant Target Air Quality Level will be considered an exceedance of the Target Air Quality Level and the actions described below will be taken.

Exceedance of an established Target Air Quality Level for any analyte calculated as provided above will result in an evaluation of engineering controls and work techniques in the source area. This evaluation shall include, but not be limited to, the evaluation of work activities that may be causing the exceedance, smoke testing of the critical barriers in question, and inspection, repair of any faulty critical barriers, and corrective action.

EPA Site-Specific Trigger Levels

Any 24-hour value (work shift value on work days or a minimum of a four hour sample value on non-work days in the case of asbestos) in excess of the EPA Site-Specific Trigger Level will be considered an "exceedance". Exceedances of EPA Site-Specific Trigger Levels will result in a stoppage of work associated with the exceedance until an evaluation of emission controls is performed and corrective action is in place. The EPA Site Specific Trigger Levels are applicable to individual sample results. If any of the individual sample results exceed the EPA Site-Specific Trigger Levels, then notification must be made to the USEPA Region 2 office and the NYCDEP. Work will be reinitiated once the USEPA Region 2 office has agreed (and NYCDEP in the case of asbestos exceedances) to the corrective action(s) proposed to prevent the potential for exceedances in future work and such corrective action(s) has been implemented.

6.1 Notification

The US EPA Region 2 office (any exceedance) and the NYCDEP (asbestos exceedance only) will be notified promptly via phone and electronic mail of any exceedance of either a Target Air Quality Level or an EPA Site-Specific Trigger Level and will be notified promptly of any corrective actions taken in connection with a Target Air Quality Level exceedance or an EPA Site-Specific Trigger Level exceedance.

In the event of an exceedance of an EPA Site-Specific Trigger Level, the owner or its contractor will prepare an exceedance summary report (1-2 pages) stating the nature of the exceedance, causes of the exceedance, and corrective actions taken if the exceedance was determined to be associated with activities on-site. The owner or its contractor will also document (e.g., log book, photographs, meteorological conditions, etc.) nearby off-site activity which could have impacted the project site.

6.2 Monitoring Data

For samples submitted for laboratory analysis, the following target laboratory analysis turn-around times are as follows for the background, abatement, and demolition phases of the project:

Table 4. Laboratory Analysis Turnaround Times for Integrated Sampling

Sample/Analysis Type	Laboratory Turnaround Time
Metals (incl. Mercury)	3 Days
Asbestos, AHERA – TEM	24 Hours
Asbestos PCMe fibers – SEM	3 Days
Crystalline Silica	3 Days
PM_{10} and $PM_{2.5}$ (QA Filters)	10 Days
Semi-volatile Organics	14 Days

Summary air sampling results collected pursuant to this specification will be submitted weekly in an electronic format suitable to EPA. 24-hour averages and graphical data for direct-read continuous sampling instruments will also provided to the USEPA Region 2 office on a weekly basis.